

# BAS 183 36 H

# Herbicide

For weed control in asparagus; conservation reserve programs (CRP); corn; cotton; fallow cropland; farmstead turf (noncropland) and sod farms; grass grown for seed; pasture, hay, rangeland, and farmstead (noncropland); proso millet; small grain; sorghum; soybean; and sugarcane

# NOT FOR USE ON DICAMBA TOLERANT (DT) CROPS

#### Active Ingredient\*:

dicamba: Potassium salt of 3,6-dichloro-o-anisic acid	52.82%
Other Ingredients:	47.18%
Total:	100.00%

<sup>\*</sup>Contains 45.08% dicamba (5 pounds acid equivalent per gallon or 600 grams per liter)

EPA Reg. No. 7969-XXX

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See full label for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

#### **Net Contents:**

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709

	FIRST AID
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

# **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

CAUTION. Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing before reuse. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### Personal Protective Equipment (PPE)

#### All mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves

See Engineering Controls for additional requirements. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls**

When handlers use closed systems or enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6).

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Wash hands after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwater or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

#### Ground and Surface Water Protection

#### Point-source Contamination

To prevent point-source contamination, **DO NOT** mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. DO NOT apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/ loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface

water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwater, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent:

- Back-siphoning into wells
- Spills
- Improper disposal of excess pesticide, spray mixtures, or rinsate

Check valves or antisiphoning devices must be used on all mixing equipment.

# Movement by Surface Runoff or Through Soil

**DO NOT** apply under conditions which favor runoff.

**DO NOT** apply if soil is saturated with water or when rainfall that may exceed soil field capacity is forecast to occur within 48 hours. Under some conditions, dicamba has the potential for runoff several days after application. Poorly draining, wet, or erodible soils with readily visible slopes toward adjacent sensitive areas are more prone to produce runoff. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Soil Conservation Service for recommendations in your use area.

**DO NOT** apply to impervious substrates including paved or highly compacted surfaces in areas with high potential for groundwater contamination. Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. **DO NOT** apply to soils classified as sand with less than 3% organic matter and where groundwater depth is shallow. To minimize the possibility of groundwater contamination, carefully follow the specified rates as affected by soil type in the **Crop-specific Information** section of this label.

**Movement by Water Erosion of Treated Soil DO NOT** apply this product through any type of irrigation system including sprinkler, drip, flood, or furrow irrigation.
Ensure treated areas have received at least 1/2-inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

#### **Endangered Species**

It is a federal offense to use any pesticide in a manner that results in the death of an endangered species.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

### **Directions For Use**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the user's possession during application.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Observe all precautions, restrictions, and limitations in this label and the labels of products used in combination with this product. Keep containers closed to avoid spills and contamination.

All applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about **Personal Protective Equipment (PPE)** and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- · Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

#### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. **DO NOT** enter or allow people (or pets) to enter the treated area until sprays have dried. **DO NOT** apply this product in a way that will contact

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

### **Pesticide Storage**

Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Avoid cross-contamination with other pesticides.

**BAS 183 36 H herbicide** freezes around 15° F and is stable under conditions of freezing and thawing. Product that has been frozen should be thawed and recirculated prior to use.

### **Pesticide Disposal**

Wastes resulting from this product must be disposed of on-site or at an approved waste disposal facility. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under **Subtitle C** of the **Resource Conservation and Recovery Act**. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law.

#### **Container Handling**

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

#### STORAGE AND DISPOSAL (continued)

# Container Handling (continued)

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Triple rinse as follows:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

#### In Case of Emergency

In case of large-scale spill of this product, call:

• CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

# Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

**BAS 183 36 H herbicide** is a water-soluble herbicide that provides postemergence and moderate rate-dependent residual control of many annual broadleaf weeds.

**BAS 183 36 H** is also active on many biennial and perennial broadleaf weeds as well as woody brush and vines (refer to **Table 1** for weeds controlled or suppressed).

**BAS 183 36 H** can be used in specific field and row crops, fallow and postharvest croplands, and sod farms. **BAS 183 36 H** does not control grass weeds and must be used sequentially or tank mixed with a grass herbicide for a complete weed control program. See **Tank Mixing Information** section for important information on herbicide tank mixes or **Crop-specific Information** section(s) for recommendations on sequential programs.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

Table 1. Weeds Controlled or Suppressed

**BAS 183 36 H** will control or suppress the following weeds when used at rates described in **Table 2**. See additional information about weeds which are known to be resistant to dicamba at

Scientific Name

www.Resistance-Information.BASF.US.

Common Namo

Scientific Name		
Lithospermum arvense		
Amaranthus palmeri		
Amaranthus powellii		
Amaranthus spinosus		
Aster subulatus		
Galium aparine		
Desmodium tortuosum		
Gutierrezia dracunculoides		
Fagopyrum tataricum		
Polygonum convolvulus		
Solanum rostratum		
Medicago polymorpha		
Sicyos angulatus		
Ranunculus arvensis		
Ranunculus repens		
Ranunculus muricatus		
Ranunculus occidentalis		
Mollugo verticillata		
Silene noctiflorum		
Anthemis arvensis		

**Table 1. Weeds Controlled or Suppressed** (continued)

Common Name	Scientific Name	
Annuals (continued)		
Chervil, bur	Anthriscus caucalis	
Chickweed, common	Stellaria media	
Clover	Trifolium spp.	
Cockle, com	Agrostemma githago	
Cockle, cow	Vaccaria pyramidata	
Cocklebur, common	Xanthium strumarium	
Copperleaf, hophornbeam	Acalypha ostryifolia	
Cornflower	Centaurea cyanus	
Croton, tropic	Croton glandulosus	
Croton, woolly	Croton capitatus	
Daisy, English	Bellis perennis	
Dragonhead, American	Dracocephalum parviflorum	
Eveningprimrose, cutleaf	Oenothera laciniata	
Falseflax, smallseed	Camelina microcarpa	
Fleabane, hairy	Conyza bonariensis	
Flixweed	Descurainia sophia	
Fumitory	Fumaria officinalis	
Goosefoot, nettleleaf	Chenopodium murale	
Hempnettie	Galeopsis tetrahit	
Henbit	Lamium amplexicaule	
Horseweed (Marestail)	Conyza canadensis	
Jacob's-ladder	Polemonium caeruleum	
Jimsonweed	Datura stramonium	
Knawel (German moss)	Scleranthus annuus	
Knotweed, prostrate	Polygonum aviculare	
Kochia <sup>3</sup>	Kochia scoparia	
Ladysthumb	Polygonum persicaria	
Lambsquarters, common	Chenopodium album	
Lettuce, miner's	Claytonia perfoliata	
Lettuce, prickly	Lactuca serriola	
Mallow, common	Malva neglecta	
Mallow, Venice	Hibiscus trionum	
Mayweed	Anthemis cotula	
Morningglory, ivyleaf	Ipomoea hederacea	
Morningglory, tall	Ipomoea purpurea	
Mustard, black	Brassica nigra	
Mustard, blue	Chorispora tenella	
Mustard, tansy	Descurainia pinnata	

**Table 1. Weeds Controlled or Suppressed** (continued)

Common Name	Scientific Name
Annuals (continued)	
Mustard, treacle	Erysimum repandum
Mustard, tumble	Sisymbrium altissimum
Mustard, wild	Sinapis arvensis
Mustard, yellowtop	Sinapis spp.
Nightshade, black	Solanum nigrum
Nightshade, cutleaf	Solanum triflorum
Pennycress, field	Thlaspi arvense
Pepperweed, Virginia	Lepidium virginicum
Pigweed, prostrate	Amaranthus blitoides
Pigweed, redroot (rough)	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Pigweed, tumble	Amaranthus albus
Pineappleweed	Matricaria matricarioides
Poorjoe	Diodia teres
Poppy, red horn	Glaucium corniculatum
Puncturevine	Tribulus terrestris
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Radish, wild	Raphanus raphanistrum
Ragweed, common	Ambrosia artemisiifolia
Ragweed, giant	Ambrosia trifida
Ragweed, lanceleaf	Ambrosia bidentata
Rocket, London	Sisymbrium irio
Rocket, yellow	Barbarea vulgaris
Rubberweed, bitter	Hymenoxys odorata
Salsify	Tragopogon porrifolius
Senna, coffee	Senna occidentalis
Sesbania, hemp	Sesbania exaltata
Shepherd's purse	Capsella bursa-pastoris
Sicklepod	Cassia obtusifolia
Sida, prickly (Teaweed)	Sida spinosa
Smartweed, green	Polygonum scabrum
Smartweed, Pennsylvania	Polygonum pensylvanicum
Sneezeweed, bitter	Helenium amarum
Sowthistle, annual	Sonchus oleraceus
Sowthistle, spiny	Sonchus asper
Spanish needles	Bidens bipinnata
Spikeweed, common	Hemizonia pungens

Table 1. Weeds Controlled or Suppressed (continued)

Annuals (continued)  Spurge, prostrate Chamaesyce humistrata Spurry, corn Spergula arvensis Starbur, bristly Acanthospermum hispidum Starwort, little Stellaria graminea Sumpweed, rough Iva ciliata Sunflower, common (wild) Helianthus annuus Thistle, Russian Salsola iberica Velvetleaf Abution theophrasti Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua  Biennials Burdock, common Arctium minus Carrot, wild Daucus carota Cockle, white Melandrium album Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Eveningprimrose, common Centurea diffusa Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistie, yellow Centaurea solstitialis Sweetclover Meliiotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, pumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials'  Alfalfa Medicago sativa Aster, spiny Aster spinosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo Bindweed, field Convolvulus arvensis	Common Name	Scientific Name	
Spurry, corn Spergula arvensis Starbur, bristly Acanthospermum hispidum Starwort, little Stellaria graminea Sumpweed, rough Iva ciliata Sunflower, common (wild) Helianthus annuus Thistle, Russian Salsola iberica Velvetleaf Abutilon theophrasti Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua Biennials Burdock, common Arctium minus Carrot, wild Daucus carota Cockie, white Melandrium album Eveningprimrose, common Geranium, Carolina Geranium agenium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Meliiotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, pumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum Perennials' Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Annuals (continued)		
Starbur, bristly Starwort, little Stellaria graminea Sumpweed, rough Sunflower, common (wild) Thistle, Russian Velvetleaf Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua Biennials Burdock, common Carrot, wild Daucus carota Cockle, white Melandrium album Eveningprimrose, common Geranium, Carolina Geranium, Carolina Geranium alfusa Knapweed, spotted Centaurea diffusa Knapweed, spotted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Meliotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, pumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum Artichoke, Jerusalem Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo	Spurge, prostrate	Chamaesyce humistrata	
Starwort, little Stellaria graminea Sumpweed, rough Iva ciliata Sunflower, common (wild) Helianthus annuus Thistle, Russian Salsola iberica Velvetleaf Abutilon theophrasti Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua Biennials Burdock, common Arctium minus Carrot, wild Daucus carota Cockle, white Melandrium album Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mailow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistie, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo	Spurry, corn	Spergula arvensis	
Sumpweed, rough	Starbur, bristly	Acanthospermum hispidum	
Sunflower, common (wild) Helianthus annuus Thistle, Russian Salsola iberica Velvetleaf Abutilon theophrasti Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua  Biennials Burdock, common Arctium minus Carrot, wild Daucus carota Cockle, white Melandrium album Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium moliugo	Starwort, little	Stellaria graminea	
Thistle, Russian  Velvetleaf  Abutilon theophrasti  Waterhemp  Amaranthus tuberculatus  Waterprimrose, winged  Ludwigia decurrens  Wormwood  Artemisia annua  Biennials  Burdock, common  Carrot, wild  Daucus carota  Cockle, white  Melandrium album  Eveningprimrose, common  Geranium, Carolina  Geranium carolinianum  Gromwell  Lithospermum spp.  Knapweed, diffuse  Centaurea diffusa  Knapweed, spotted  Centaurea maculosa  Mallow, dwarf  Maiva borealis  Plantain, bracted  Plantago aristata  Ragwort, tansy  Senecio jacobaea  Starthistle, yellow  Centaurea solstitialis  Sweetclover  Melilotus spp.  Teasel  Dipsacus sativus  Thistle, bull  Cirsium vulgare  Thistle, pumeless  Carduus nutans  Thistle, pumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Medicago sativa  Apple, tropical soda  Solanum viarum  Artichoke, Jerusalem  Helianthus tuberosus  Aster, spiny  Aster spinosus  Bedstraw, smooth  Gallium mollugo	Sumpweed, rough	lva ciliata	
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Waterhemp Amaranthus tuberculatus Waterprimrose, winged Ludwigia decurrens Wormwood Artemisia annua  Biennials Burdock, common Arctium minus Carrot, wild Daucus carota Cockle, white Melandrium album Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, plumeless Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo	Thistle, Russian	Salsola iberica	
Waterprimrose, winged  Wormwood  Artemisia annua  Biennials  Burdock, common  Carrot, wild  Daucus carota  Cockle, white  Eveningprimrose, common  Geranium, Carolina  Geranium, Carolina  Geranium carolinianum  Gromwell  Lithospermum spp.  Knapweed, diffuse  Centaurea diffusa  Knapweed, spotted  Centaurea maculosa  Mallow, dwarf  Plantain, bracted  Plantago aristata  Ragwort, tansy  Senecio jacobaea  Starthistle, yellow  Centaurea solstitialis  Sweetclover  Melilotus spp.  Teasel  Dipsacus sativus  Thistle, bull  Cirsium vulgare  Thistle, plumeless  Carduus acanthoides  Thistle, primeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Apple, tropical soda  Aster, spiny  Aster spinosus  Aster, whiteheath  Aster pilosus  Bedstraw, smooth  Gallium mollugo	Velvetleaf	Abutilon theophrasti	
Biennials  Burdock, common Arctium minus  Carrot, wild Daucus carota  Cockle, white Melandrium album  Eveningprimrose, common Oenothera biennis  Geranium, Carolina Geranium carolinianum  Gromwell Lithospermum spp.  Knapweed, diffuse Centaurea diffusa  Knapweed, spotted Centaurea maculosa  Mallow, dwarf Malva borealis  Plantain, bracted Plantago aristata  Ragwort, tansy Senecio jacobaea  Starthistle, yellow Centaurea solstitialis  Sweetclover Melilotus spp.  Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, plumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Waterhemp	Amaranthus tuberculatus	
Biennials  Burdock, common Arctium minus  Carrot, wild Daucus carota  Cockle, white Melandrium album  Eveningprimrose, common Oenothera biennis  Geranium, Carolina Geranium carolinianum  Gromwell Lithospermum spp.  Knapweed, diffuse Centaurea diffusa  Knapweed, spotted Centaurea maculosa  Mallow, dwarf Malva borealis  Plantain, bracted Plantago aristata  Ragwort, tansy Senecio jacobaea  Starthistle, yellow Centaurea solstitialis  Sweetclover Melilotus spp.  Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, piumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Waterprimrose, winged	Ludwigia decurrens	
Burdock, common Arctium minus  Carrot, wild Daucus carota  Cockle, white Melandrium album  Eveningprimrose, common Oenothera biennis  Geranium, Carolina Geranium carolinianum  Gromwell Lithospermum spp.  Knapweed, diffuse Centaurea diffusa  Knapweed, spotted Centaurea maculosa  Mallow, dwarf Malva borealis  Plantain, bracted Plantago aristata  Ragwort, tansy Senecio jacobaea  Starthistle, yellow Centaurea solstitialis  Sweetclover Melilotus spp.  Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, plumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Wormwood	Artemisia annua	
Carrot, wild Daucus carota  Cockle, white Melandrium album  Eveningprimrose, common Oenothera biennis  Geranium, Carolina Geranium carolinianum  Gromwell Lithospermum spp.  Knapweed, diffuse Centaurea diffusa  Knapweed, spotted Centaurea maculosa  Mallow, dwarf Malva borealis  Plantain, bracted Plantago aristata  Ragwort, tansy Senecio jacobaea  Starthistle, yellow Centaurea solstitialis  Sweetclover Melilotus spp.  Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, plumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Bedstraw, smooth Gallium mollugo	Biennials		
Cockle, white Melandrium album Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistie, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials  Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Burdock, common	Arctium minus	
Eveningprimrose, common Oenothera biennis Geranium, Carolina Geranium carolinianum Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Carrot, wild	Daucus carota	
Geranium, Carolina Gromwell Lithospermum spp. Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, plumeless Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Cockle, white	Melandrium album	
Gromwell Lithospermum spp.  Knapweed, diffuse Centaurea diffusa Knapweed, spotted Centaurea maculosa Mallow, dwarf Malva borealis Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Eveningprimrose, common	Oenothera biennis	
Knapweed, diffuse  Knapweed, spotted  Centaurea maculosa  Mallow, dwarf  Plantain, bracted  Ragwort, tansy  Senecio jacobaea  Starthistle, yellow  Centaurea solstitialis  Sweetclover  Melilotus spp.  Teasel  Dipsacus sativus  Thistle, bull  Cirsium vulgare  Thistle, musk  Carduus nutans  Thistle, plumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Medicago sativa  Apple, tropical soda  Aster, spiny  Aster spinosus  Bedstraw, smooth  Gallium mollugo	Geranium, Carolina	Geranium carolinianum	
Mallow, dwarf Mallow, dwarf Mallow, dwarf Malva borealis Plantain, bracted Ragwort, tansy Senecio jacobaea Starthistie, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Gromwell	Lithospermum spp.	
Mallow, dwarf Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Bedstraw, smooth Gallium mollugo	Knapweed, diffuse	Centaurea diffusa	
Plantain, bracted Plantago aristata Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Solanum viarum Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo	Knapweed, spotted	Centaurea maculosa	
Ragwort, tansy Senecio jacobaea Starthistle, yellow Centaurea solstitialis Sweetclover Melilotus spp. Teasel Dipsacus sativus Thistle, bull Cirsium vulgare Thistle, musk Carduus nutans Thistle, plumeless Carduus acanthoides Thistle, variegated (milk) Silybum marianum  Perennials¹ Alfalfa Medicago sativa Apple, tropical soda Apple, tropical soda Artichoke, Jerusalem Helianthus tuberosus Aster, spiny Aster spinosus Aster, whiteheath Aster pilosus Bedstraw, smooth Gallium mollugo	Mallow, dwarf	Malva borealis	
Starthistle, yellow  Centaurea solstitialis  Sweetclover  Melilotus spp.  Teasel  Dipsacus sativus  Thistle, bull  Cirsium vulgare  Thistle, musk  Carduus nutans  Thistle, plumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Medicago sativa  Apple, tropical soda  Solanum viarum  Artichoke, Jerusalem  Helianthus tuberosus  Aster, spiny  Aster spinosus  Aster, whiteheath  Aster pilosus  Bedstraw, smooth  Gallium mollugo	Plantain, bracted	Plantago aristata	
Sweetclover Melilotus spp.  Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, plumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Ragwort, tansy	Senecio jacobaea	
Teasel Dipsacus sativus  Thistle, bull Cirsium vulgare  Thistle, musk Carduus nutans  Thistle, plumeless Carduus acanthoides  Thistle, variegated (milk) Silybum marianum  Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Starthistle, yellow	Centaurea solstitialis	
Thistle, bull  Cirsium vulgare  Thistle, musk  Carduus nutans  Thistle, plumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Apple, tropical soda  Artichoke, Jerusalem  Aster, spiny  Aster spinosus  Aster, whiteheath  Aster pilosus  Bedstraw, smooth  Carduus nutans  Carduus nutans  Medicago sativa  Alfalfa  Medicago sativa  Helianthus tuberosus  Aster spinosus  Aster pilosus  Bedstraw, smooth  Gallium mollugo	Sweetclover	Melilotus spp.	
Thistle, musk  Carduus nutans  Thistle, plumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Medicago sativa  Apple, tropical soda  Solanum viarum  Artichoke, Jerusalem  Helianthus tuberosus  Aster, spiny  Aster spinosus  Aster, whiteheath  Aster pilosus  Bedstraw, smooth  Gallium mollugo	Teasel	Dipsacus sativus	
Thistle, plumeless  Carduus acanthoides  Thistle, variegated (milk)  Silybum marianum  Perennials¹  Alfalfa  Apple, tropical soda  Artichoke, Jerusalem  Aster, spiny  Aster spinosus  Aster, whiteheath  Bedstraw, smooth  Carduus acanthoides  Carduus acanthoides  Silybum marianum  Medicago sativa  Alfalfa  Medicago sativa  Helianthus tuberosus  Aster spinosus  Aster pilosus  Bedstraw, smooth  Gallium mollugo	Thistle, bull	Cirsium vulgare	
Thistle, variegated (milk)  Perennials¹  Alfalfa  Apple, tropical soda  Artichoke, Jerusalem  Aster, spiny  Aster, whiteheath  Bedstraw, smooth  Silybum marianum  Medicago sativa  Solanum viarum  Helianthus tuberosus  Aster spinosus  Aster pilosus  Gallium mollugo	Thistle, musk	Carduus nutans	
Perennials¹  Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Thistle, plumeless	Carduus acanthoides	
Alfalfa Medicago sativa  Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Thistle, variegated (milk)	Silybum marianum	
Apple, tropical soda Solanum viarum  Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Perennials <sup>1</sup>		
Artichoke, Jerusalem Helianthus tuberosus  Aster, spiny Aster spinosus  Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Alfalfa	Medicago sativa	
Aster, spiny Aster spinosus  Aster pilosus  Bedstraw, smooth Gallium mollugo	Apple, tropical soda	Solanum viarum	
Aster, whiteheath Aster pilosus  Bedstraw, smooth Gallium mollugo	Artichoke, Jerusalem	Helianthus tuberosus	
Bedstraw, smooth Gallium mollugo	Aster, spiny	Aster spinosus	
	Aster, whiteheath	Aster pilosus	
Bindweed, field Convolvulus arvensis	Bedstraw, smooth	Gallium mollugo	
	Bindweed, field	Convolvulus arvensis	

(continued)

**Table 1. Weeds Controlled or Suppressed** (continued)

Common Name	Scientific Name
Perennials¹ (continued)	
Bindweed, hedge	Calystegia sepium
Blueweed, Texas	Helianthus ciliaris
Bursage, woollyleaf	Ambrosia grayi
Buttercup, tall	Ranunculus acris
Campion, bladder	Silene vulgaris
Chickweed, field	Cerastium arvense
Chickweed, mouseear	Cerastium vulgatum
Chicory	Cichorium intybus
Clover, hop	Trifolium aureum
Dandelion, common	Taraxacum officinale
Dock, broadleaf (Bitterdock)	Rumex obtusifolius
Dock, curly	Rumex crispus
Dogbane, hemp	Apocynum cannabinum
Dogfennel (Cypressweed)	Eupatorium capillifolium
Fern, bracken	Pteridium aquilinum
Garlic, wild	Allium vineale
Goldenrod, Canada	Solidago canadensis
Goldenrod, Missouri	Solidago missouriensis
Goldenweed, common	Isocoma coronopifolia
Hawkweed	Hieracium spp.
Henbane, black	Hyoscyamus niger
Horsenettle, Carolina	Solanum carolinense
Ironweed	Vernonia spp.
Knapweed, black	Centaurea nigra
Knapweed, Russian	Centaurea repens
Lespedeza, sericea	Lespedeza cuneata
Milkweed, climbing	Sarcostemma cyanchoides
Milkweed, common	Asclepias syriaca
Milkweed, honeyvine	Ampelamus albidus
Milkweed, western whorled	Asclepias subverticillata
Nettle, stinging	Urtica dioica
Nightshade, silverleaf	Solanum elaeagnifolium
Onion, wild	Allium canadense
Plantain, broadleaf	Plantago major
Plantain, buckhorn	Plantago lanceolata
Pokeweed	Phytolacca americana
Ragweed, western	Ambrosia psilostachya
Redvine	Brunnichia ovata

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name	
Perennials¹ (continued)		
Smartweed, swamp	Polygonum coccineum	
Snakeweed, broom	Gutierrezia sarothrae	
Sorrel, red (Sheep sorrel)	Rumex acetosella	
Sowthistle, perennial	Sonchus arvensis	
Spurge, leafy	Euphorbia esula	
Sundrop	Oenothera perennis	
Thistle, Canada	Cirsium arvense	
Thistle, Scotch	Onopordum acanthium	
Toadflax, Dalmatian	Linaria genistifolia	
Trumpetcreeper	Campsis radicans	
Vetch	Vicia spp.	
Waterhemlock, spotted	Cicuta maculata	
Waterprimrose, creeping	Ludwigia peploides	
Woodsorrel, creeping	Oxalis corniculata	
Woodsorrel, yellow	Oxalis stricta	
Wormwood, Louisiana	Artemisia ludoviciana	
Yankeeweed	Eupatorium compositifolium	
Yarrow, common	Achillea millefolium	
Woody Brush and Vines <sup>1</sup>	,2	
Alder	Alnus spp.	
Ash	Fraxinus spp.	
Basswood	Tilia americana	
Beech	Fagus spp.	
Birch	Betula spp.	
Cherry	Prunus spp.	
Chinquapin	Chrysolepis chrysophylla	
Cottonwood	Populus deltoides	
Cucumbertree	Magnolia acuminata	
Elm	Ulmus spp.	
Grape	Vitus spp.	
Hemlock	Tsuga spp.	
Hickory	Carya spp.	
Honeylocust	Gleditsia triacanthos	
Honeysuckle	Lonicera spp.	
Hombeam	Carpinus spp.	
Huckleberry	Vaccinium arboreum	
Huisache	Acacia farnesiana	
lvy, poison	Rhus radicans	

(continued)

Table 1. Weeds Controlled or Suppressed (continued)

Common Name	Scientific Name
Woody Brush and Vines	<sup>1, 2</sup> (continued)
Kudzu	Pueraria lobata
Locust, black	Robinia pseudoacacia
Maple	Acer spp.
Mesquite	Prosopis ruscifolia
Oak	Quercus spp.
Oak, poison	Rhus toxicodendron
Olive, Russian	Elaeagnus angustifolia
Persimmon, eastern	Diospyros virginiana
Pine	Pinus spp.
Poplar	Populus spp.
Rabbitbrush	Chrysothamnus pulchellus
Rose, multiflora	Rosa multiflorum
Sassafras	Sassafras albidum
Serviceberry	Amelanchier sanguinea
Spicebush	Lindera benzoin
Spruce	Picea spp.
Sumac	Rhus spp.
Sycamore	Platanus occidentalis
Tarbush	Flourensia cernua
Willow	Salix spp.
Witchhazel	Hamamelis macrophylla
1 Suppression only	

<sup>&</sup>lt;sup>1</sup>Suppression only,

# **Product Stewardship Practices**

- Apply BAS 183 36 H herbicide to weeds 4 inches or less in size for best performance.
- Apply BAS 183 36 H at the labeled rate to minimize the likelihood of weed resistance occurring. DO NOT apply at less than the labeled rate. See Crop-specific Information for labeled rates by crop.
- Use BAS 183 36 H as part of a herbicide program that includes the use of residual herbicides and herbicides with alternate sites of action to reduce resistance selection pressure.
- Select nozzles that produce coarse to ultra-coarse spray droplets.
- Maintain boom height 24 inches or less from target.
- Identify areas of sensitive nontarget crops/plants and maintain proper setback distance from these areas.
   Sensitive crops in agricultural and/or residential settings can include, but are not limited to:
  - non-DT soybeans
  - cucumber and melons (EPA Crop Group 9)
  - flowers
  - fruit trees

- grapes
- ornamentals including greenhouse-grown and shade house-grown broadleaf plants
- peanuts
- peas and beans (EPA Crop Group 6)
- peppers, tomatoes, and other fruiting vegetables (EPA Crop Group 8)
- potato
- sweet potato
- tobacco
- Thoroughly clean spray equipment before and after application.

#### **Mode of Action**

Dicamba, the active ingredient in **BAS 183 36 H**, is a **Group 4** (WSSA) herbicide. Herbicides in this group mimic auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal plant growth (e.g. cell division, cell enlargement, and protein synthesis). **BAS 183 36 H** is readily absorbed by leaves, roots, and shoots; translocates throughout the plant; and accumulates in areas of active growth to provide postemergence control of emerged weeds as well as moderate residual control of germinating weed seeds.

Any weed population may contain plants naturally resistant to **Group 4** herbicides. Weeds resistant to **Group 4** herbicides should be managed using effective herbicide(s) from a different group and/or by using cultural or mechanical practices. Report any incidence of non-performance of this product against a particular weed species at **www.EngeniaQuestions.com**. Consult your local BASF representative, state cooperative extension service, professional consultants, or other qualified authority to determine appropriate actions if you suspect resistant weeds. Additional information about weeds which are known to be resistant to dicamba can be found at **www.Resistance-Information.BASF.US**.

# Herbicide Resistance Management

For resistance management, **BAS 183 36 H** contains a **Group 4** herbicide. Any weed population may contain plants naturally resistant to **Group 4** herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly are used repeatedly in the same fields. Appropriate resistant-management strategies should be followed.

#### To delay herbicide resistance consider:

- Avoiding the consecutive use of herbicides that have a similar target-site-of-action on the same weed species.
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods.

<sup>&</sup>lt;sup>2</sup> Not for use in California.

<sup>&</sup>lt;sup>3</sup> Except dicamba resistant.

- Monitoring treated weed populations for loss of field efficacy, and control of escapes with effective alternative herbicides or mechanical methods.
- Identify weeds present in the field through scouting and field history and understand their biology. The weedcontrol program needs to consider all of the weeds present.
- Scout fields prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout fields after application to verify the treatment was effective.
- Suspected herbicide-resistance weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- 2. A spreading patch of non-controlled plants of a particular weed species; and
- 3. Surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Report any incidence of non-performance of this product against a particular weed species to your BASF representative.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes.
- For more information about weeds that are known to be resistant to dicamba go to

www.Resistance-Information.BASF.US.

#### **Crop Tolerance**

Crops growing under normal environmental conditions are tolerant to **BAS 183 36 H herbicide** when applied according to label directions. Crop injury may occur under stressful growing conditions (e.g. low soil fertility, seedling disease, extreme hot or cold weather, excessive moisture, high soil pH, high soil salt concentration, drought).

# **Application Instructions**

Apply **BAS 183 36 H** by ground to actively growing weeds as a band, broadcast, or spot spray application for postemergence control of emerged weeds as well as moderate residual control of germinating weed seeds.

Make postemergence applications of **BAS 183 36 H** when broadleaf weeds are small and actively growing. An adjuvant is recommended with **BAS 183 36 H** for best postemergence activity; refer to **Tank Mixing Information** section and **Crop-specific Information** sections for details. Postemergence activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions. When targeting dense weed populations and/or larger broadleaf weeds, use

higher spray volumes and a higher application rate within an application rate range.

Cultivation should be delayed until 7 days after applying BAS 183 36 H or a reduction in weed control may occur.

Use extreme care when applying **BAS 183 36 H** to prevent injury to desirable plants. **BAS 183 36 H** may cause injury to desirable sensitive plants when contacting their roots, stems, or foliage.

#### **Application Rates**

Always read and follow crop-specific use directions.

### Table 2. Application Rate to Control or Suppress Target Weed by Weed Type and Growth Stage

**BAS 183 36 H** must always be tank mixed with an adjuvant when used for control of emerged broadleaf weeds.

(See **Crop-specific Information** section for additional directions and exceptions)

' /	<b></b>
Weed Type and Growth Stage	Rate/Acre <sup>2,5</sup> (fl ozs)
Annual	
Small, actively growing <sup>1</sup> (less than 4-inches tall)	3.2 to 12.8
Small, actively growing (less than 4-inches tall) plus moderate residual control	12.8 to 25.6
Biennial	
Rosette diameter 1 to 3 inches <sup>1</sup>	6.4 to 12.8
Rosette diameter more than 3 inches	12.8 to 25.6
Bolting	25.6
Perennial <sup>3</sup>	
Top growth suppression	6.4 to 12.8
Top growth control and root suppression	12.8 to 25.6
Woody Brush and Vines <sup>3,4</sup>	
Top growth suppression/control	12.8 to 25.6

<sup>1</sup> Although rates below 12.8 fl ozs/A (refer to crop-specific sections of the label for minimum use rates) may provide adequate control of annual and biennial weeds, for optimum performance use the higher listed rates or apply the lower listed rate as a tank mix with other herbicides that are effective on the same species and biotype.

- <sup>3</sup> **BAS 183 36 H** will suppress the top growth of herbaceous perennial and woody brush and vines and can be combined with other herbicides to improve control.
- <sup>4</sup> Not for use in California.
- <sup>6</sup> **DO NOT** broadcast-apply more than 25.6 fl ozs/A per application. Retreatment or tank mixes may be necessary for best control of some weeds. However, sequential applications must not exceed a maximum cumulative total of 51.2 fl ozs/A of **BAS 183 36 H** (2 lbs dicamba ae/A) per year.

<sup>&</sup>lt;sup>2</sup> Use the higher rate within listed ranges when treating weeds resistant to other sites of action, dense vegetative growth, or weeds with a well-established root system. The higher rates also provide moderate residual annual weed control.

# **Application Methods and Equipment**

Apply **BAS 183 36 H herbicide** by ground or by air. Thorough spray coverage is important for best broadleaf weed control and can be improved with adjuvant, nozzle, and spray volume selection. A spray adjuvant must always be used with **BAS 183 36 H** when applying for the control of emerged broadleaf weeds.

Calibrate application equipment for accurate target spray volume and application rate to ensure uniform distribution of spray and to avoid spray drift to nontarget areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above the labeled use rates.

**BAS 183 36 H** may be applied using water; consult crop-specific information sections of this label for other spray carrier options.

### **Aerial Application Methods and Equipment**

**Water Volume:** Use 1 to 10 gallons of water per acre (2 to 20 gallons of diluted spray per treated acre for preharvest uses). Use the higher spray volume when treating dense or tall vegetation.

**Application Equipment:** Select nozzles designed to produce minimal amounts of fine spray particles. Make aerial applications at the lowest safe height to reduce exposing the spray to evaporation and wind. The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling, as well as state and local regulations and ordinances. **DO NOT** use aerial equipment if spray particles can be carried by the wind into areas where sensitive crops or plants are growing or when temperature inversions exist.

# **Ground Application**

#### **Banding Applications**

When applying **BAS 183 36 H** by banding, use the following formula to calculate the amount of herbicide and water volume needed:

Bandwidth in inches

Row width in inches

X

Broadcast = Banding herbicide rate per acre rate per acre

Bandwidth in inches
Row width in inches x Broadcast volume per acre = Banding water volume per acre

# **Broadcast Applications**

Unless noted in the crop-specific information section, use a spray volume of 15 gallons of water or more per treated acre. Thorough coverage of existing vegetation is essential for postemergence applications; higher spray volumes may be necessary for optimum performance.

#### Wiper Applications

**BAS 183 36 H** may be applied through wiper application equipment to control or suppress actively growing

broadleaf weeds, brush, and vines. Use a 50% solution containing 1 part **BAS 183 36 H** to 1 part water.

- DO NOT apply more than 25.6 fl ozs/A of BAS 183 36 H
   [1.0 lb dicamba acid equivalent (ae) per acre] per application.
- DO NOT contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and noncropland areas described in this label.
   EXCEPTION: DO NOT use wiper application on cotton or soybean.

# **Spray System Equipment Clean-out**

The applicator must ensure that the spray system used to apply **BAS 183 36 H** is clean before application. Additionally, small quantities of ammonium sulfate (AMS) can increase the volatility potential of **BAS 183 36 H**. Be sure that any spray mixture from a prior application that contains AMS is drained and rinsed from the sprayer. After using **BAS 183 36 H**, clean all mixing and spray equipment (including tanks, pumps, lines, filters, screens, and nozzles) with a strong detergent based sprayer cleaner. Severe crop injury may occur if any **BAS 183 36 H** remains in the spray equipment following application and is subsequently applied to sensitive crops. Dispose of rinsate in compliance with local, state, and federal guidelines.

- After spraying, drain the sprayer (including boom and lines). Avoid allowing the spray solution to remain in the spray boom lines overnight or for extended periods of time.
- 2. Flush tank, hoses, boom, and nozzles with clean water. Open boom ends and flush if so equipped.
- 3. Inspect and clean all strainers, screens, and filters.
- 4. Use commercial sprayer cleaner containing strong detergents according to the manufacturer's directions.
- 5. Wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
- 6. Flush hoses, spray lines, and nozzles with the cleaning solution for at least 1 minute. Remove nozzles, screens, and strainers, and clean separately in the cleaning solution after completing the above procedure.
- 7. Drain pump, filter, and lines.
- 8. Triple rinse the complete spraying system with clean water.
- 9. Clean and rinse the exterior of the sprayer.
- 10. Appropriately dispose of all rinsate in compliance with local, state, and federal requirements.

# **Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator. The spray system and weather-related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making application decisions to avoid spray drift onto nontarget areas.

Applicators must follow application requirements to avoid spray drift hazards, including those found in this labeling and applicable state and local regulations and ordinances. Where states have more stringent regulations, they must be observed.

All application equipment must be properly maintained and calibrated using appropriate carriers.

**DO NOT** allow herbicide solution to drip, physically drift, or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result. The following physical spray drift management requirements must be followed.

# **Controlling Droplets**

Drift potential may be reduced by applying large droplets that provide sufficient coverage and control. Applying larger droplets can reduce drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **Temperature Inversions** and the **Wind Speed and Direction Requirements** sections).

- Nozzle Type Use nozzles that produce course to ultra course spray droplets and minimize the production of fine droplets.
- Pressure DO NOT exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate (large orifice) nozzles instead of increasing pressure. Ensure sprayer rate controller hardware (if so equipped) does not allow pressure increases above the desired range.
- **Spray Volume** Apply this product in a minimum of 15 gallons of spray solution per acre. Use a higher spray volume when treating dense vegetation. Higher spray volumes may also allow the use of larger nozzle orifices (sizes) which produce coarser spray droplets.
- Equipment Ground Speed Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but **DO NOT** exceed a ground speed of 15 miles per hour. Slower speeds generally result in better spray coverage and deposition on the target area. It is recommended that ground speed be reduced to 5 miles per hour when making applications to the edge of the treatment area.
- Spray Boom Height Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but DO NOT exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- Hooded Spray Booms Hooded spray booms are another tool that can be used to minimize spray drift potential. BAS 183 36 H herbicide may be applied using a hooded spray boom in combination with approved nozzles; however, the applicator must ensure the configuration is compatible with equipment used.

### **Temperature Inversions**

 DO NOT apply BAS 183 36 H when temperature inversions exist at the field level.

Temperature inversions increase drift potential by reducing atmospheric mixing and dispersion of any suspended spray mixture. Suspended spray residues can move in unpredictable directions because of the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind.

Inversions begin to form as the sun sets and often continue into the morning before surface warming. Their presence can be indicated by ground fog, smoke not rising, dust hanging over a road, or presence of dew or frost. Smoke that layers and moves laterally (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Inversion conditions typically dissipate with increased winds (above 3 MPH) or when surface air begins to warm (3° F from morning low).

# Treatment Zone Awareness (Sensitive Areas, Sensitive Crops and Residential Areas)

#### **Sensitive Areas**

**BAS 183 36 H** should only be applied when there is low potential for drift to sensitive areas (see **Definitions**). It is best to apply when the wind is blowing away from sensitive areas.

# Sensitive Crops and Residential Areas

- DO NOT apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.
- During application and sprayer clean-out, **DO NOT** allow contact of herbicide with foliage, green stems, exposed non-woody roots of crops, and desirable plants.
- Downwind and Shifting Winds
  - DO NOT apply when wind is blowing in the direction of neighboring sensitive crops or residential areas.
  - The appropriate distance must be determined by the applicator relative to where the application is being made, the environmental conditions, and the potential risk to downwind sensitive crops and residential areas.
  - The applicator also must be aware that WIND DIRECTION may vary during the application. If wind direction shifts such that the wind is blowing toward neighboring sensitive crops or residential areas, STOP the application.

**Survey the area before spraying:** Small amounts of spray drift that may not be visible may injure sensitive broadleaf plants. Before making an application, the applicator must survey the application site for neighboring sensitive crops and residential areas. The applicator must consult sensitive crop registries where available. Plant

injury could occur if contact between this product and these crops/plants occurs. See **www.driftwatch.org** or other sensitive crop registry websites for more information on possible sensitive sites near your application location.

# AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and ontarget spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide drift regulations.

#### **Definitions**

- Sensitive Areas Bodies of water and nonresidential, uncultivated areas that may harbor sensitive plant species.
- Sensitive Crops and Residential Areas Food, forage, or other plantings grown for sale, use or consumption. Sensitive crops/plants also can be present in nonagricultural settings, including residential areas.
   Examples include, but are not limited to:
- non-DT soybeans
- cucumber and melons (EPA Crop Group 9)
- flowers
- fruit trees
- grapes
- ornamentals including greenhouse-grown and shade house-grown broadleaf plants
- peanuts
- peas and beans (EPA Crop Group 6)
- peppers, tomatoes, and other fruiting vegetables (EPA **Crop Group 8**)
- potato
- sweet potato
- tobacco

Severe injury or destruction could occur if any contact between this product and these crops/plants occurs.

# Wind Speed and Direction Requirements

- Wind Speed 3 to 15 mph
- Wind Direction Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

# Tank Mixing Information

**BAS 183 36 H herbicide** may be tank mixed with other products that are not prohibited on this label and are approved for use on the target crop or area.

A spray adjuvant should always be used with **BAS 183 36 H** when applying for the control of emerged broadleaf weeds.

To improve postemergence weed control with **BAS 183 36 H**, a Chemical Producers and Distributors Association (CPDA) certified adjuvant may be used. Some adjuvants have the potential to cause crop injury under certain conditions, at certain growth stages and/or under

other circumstances. Read all labels for products used in the tank mixture prior to use to determine the potential for crop injury.

# Surfactants and Spreaders

#### Nonionic Surfactants/Spreaders (NIS)

Use an agriculturally approved nonionic surfactant (containing at least 80% active ingredient) at 1 to 2 pints/100 gallons [0.12 to 0.25% volume/volume (v/v)]. Use the highest rate of NIS when using the lower rate ranges of a tank mix or when treating more mature and difficult-to-control weeds or dense vegetative growth.

#### OR

# Oil Concentrate Surfactants (COC, HSOC, MSO)\*

Instead of NIS, oil concentrate may be used at 1 to 2 quarts/100 gallons (0.5% to 1% v/v), but at least 1 pint/acre. (alternate text: **DO NOT** use oil concentrate for postemergence in-crop applications unless specifically allowed in the **Crop-specific Information** section of this label).

A crop oil concentrate must contain either a petroleum-oil or vegetable-oil base and must:

- Be non-phytotoxic
- Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- Be successful in local experience

Petroleum-oil and vegetable-oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

\*COC - crop oil concentrate

HSOC - high surfactant oil concentrate

MSO - methylated seed oil

Warnings and Restrictions:

- Some COC, HSOC and MSO adjuvants may cause a temporary crop response.
- DO NOT tank mix products containing ammonium salts including ammonium sulfate and urea ammonium nitrate (UAN).
- **DO NOT** add adjuvants that will further decrease pH or acidify the spray solution.
- Spray mixtures with lower pH levels (less than pH 5) can increase the potential volatility of dicamba. To mitigate this potential it is important to know the pH of your spray mixture and make appropriate adjustments. Talk with your local agricultural consultant, extension agent, or BASF representative for recommendations to prevent low pH spray mixtures.
- Use of an approved neutral buffering agent may be warranted if the water source or tank mix components will create an acidic spray solution less than pH 5. Possible ways to check the pH of the spray mixture is with a litmus paper test or pH meter. If the pH needs to be increased then consider using an approved neutral buffering agent.
- Hard water does not usually affect the activity of BAS 183 36 H; however, other tank mix components

- may be adversely affected (e.g. glyphosate). Use of an approved conditioning agent should be considered when hard water (i.e. total calcium, magnesium, and iron content above 500 ppm) is used as a spray carrier.
- Drift reduction agents can minimize the percentage of driftable fines. However, the applicator must check with the DRA manufacturer to determine if the DRA will work effectively with the spray nozzle, the spray pressure, and the desired spray solution.

Refer to the tank mix product labels to confirm that the respective tank mix products are registered for the specific crop use; follow required crop rotation restrictions. Read and follow the applicable restrictions and limitations and **Directions For Use** on all product labels involved in tank mixing. Always follow the most restrictive label use directions; refer to crop-specific information section for details.

Mixing **BAS 183 36 H herbicide** with postemergence grass (graminicide) herbicides may reduce the effectiveness of those products. Follow graminicide label when mixing with **BAS 183 36 H** to ensure optimum weed control. Physical incompatibility, reduced weed control, or crop injury may result from mixing **BAS 183 36 H** with other pesticides, additives, nutritionals, etc.

#### **Compatibility Test for Mix Components**

Before mixing components, always perform a compatibility jar test.

- For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- 2. Add components in the sequence indicated in the following **Mixing Order** instructions using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- 4. When the components have all been added to the jar, let the solution stand for 15 minutes.
- 5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

#### Mixing Order

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. Except when mixing products in PVA bags, maintain constant agitation during mixing and application.

- 1. **Water** Begin by agitating a thoroughly clean sprayer tank 1/2 to 3/4 full of clean water.
- 2. **Inductor** If an inductor is used, rinse it thoroughly after each component has been added.

- 3. Products in PVA bags Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 4. Water-soluble products and additives (BAS 183 36 H)
- Water-dispersible products (including dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
- Emulsifiable concentrates (including NIS and oil concentrate)
- 7. Remaining quantity of water

Maintain continuous and constant agitation throughout mixing and application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

#### **Use Precautions**

- Stress Application to crops under stress because of lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures may result in crop injury.
- Rainfast Period BAS 183 36 H is rainfast 4 hours after application. Postemergence activity may be reduced if rain or irrigation occurs within 4 hours of application.

#### **Use Restrictions**

Applicator MUST ALSO follow restrictions under Crop-specific Information section(s).

- Maximum Annual Use Rate Refer to crop-specific information sections for maximum annual application rates for each crop or use pattern. DO NOT exceed 51.2 fl ozs (2.0 lb dicamba acid equivalent) per acre per year.
- DO NOT apply BAS 183 36 H with ammoniumcontaining additives, conditioners, or fertilizers (e.g. AMS, UAN). Small quantities of AMS can greatly increase the volatility potential of dicamba.
- DO NOT apply BAS 183 36 H if wind speed is greater than 15 mph.
- **DO NOT** treat or contaminate irrigation ditches or water used for domestic purposes.
- DO NOT apply BAS 183 36 H through any type of irrigation system (e.g. chemigation).
- DO NOT tank mix BAS 183 36 H with Lorsban® insecticide.

# **Crop Rotation Restrictions**

Use the following information to determine the required interval between **BAS 183 36 H herbicide** application and rotational crop planting as well as replanting after crop failure because of environmental factors including drought, frost, or hail. Determine the rotational crop interval for tank mix products and use the most restrictive interval of all products applied.

#### **Crop Rotational Restrictions:**

The interval between application and planting rotational crop is given below. Always exclude counting days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions for BAS 183 36 H applications of 19.2 fl ozs per acre or less: No rotational cropping restrictions apply at 120 days or more following application. Additionally, for annual crop uses in this label including corn, cotton, sorghum, and soybean, follow the preplant use directions in section BAS 183 36 H Crop-specific Use Directions. For barley, oat, wheat, and other grass seedings, the interval between application and planting is 15 days per 6.4 fl ozs per acre applied east of the Mississippi River and 22 days per 6.4 fl ozs per acre west of the Mississippi River.

Planting/replanting restrictions for applications of more than 19.2 fl ozs and up to 51.2 fl ozs of BAS 183 36 H per acre: Corn, sorghum, cotton (east of the Rocky Mountains) and all other crops grown in areas with 30 inches or more of annual rainfall may be planted 120 days or more after application. Barley, oat, wheat, and other grass seedings, may be planted if the interval from application to planting is 30 days per 12.8 fl ozs per acre east of the Mississippi River and 45 days per 12.8 fl ozs per acre west of the Mississippi River. For all other crops in areas with less than 30 inches of annual rainfall, the interval between application and planting is 180 days or more.

# BAS 183 36 H Crop-specific Use Directions

Read product information, application instructions, weeds controlled, and additive instructions in preceding sections of the label.

Depending on specific crop application directions, **BAS 183 36 H** may be applied for postemergence control of emerged broadleaf weeds and/or residual control of germinating broadleaf weed seeds before crop planting (preplant and/or preseed) and after planting (preemergence, postemergence). Refer to **Table 1** for list of weeds controlled or suppressed.

#### **Asparagus**

BAS 183 36 H may be applied immediately after cutting asparagus but at least 24 hours before the next cutting. Apply 6.4 to 12.8 fl ozs/A of BAS 183 36 H in 40 to 60 gallons of diluted spray to emerged and actively growing weeds. Apply 12.8 fl ozs/A of BAS 183 36 H to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. To improve control of Canada thistle and field bindweed, apply BAS 183 36 H in combination with glyphosate (e.g. Roundup® herbicide) or sequentially with 2,4-D.

Avoid application to emerged spears. If spray contacts emerged spears, crooking (twisting) of some spears may result. If crooking occurs, discard affected spears.

### Asparagus Restrictions

- DO NOT apply over the top to emerged spears or ferns
- DO NOT apply more than a total of 12.8 fl ozs/A of BAS 183 36 H (0.5 pound dicamba ae/A) per year in asparagus.
- DO NOT harvest for 24 hours after treatment.
- **DO NOT** use in the Coachella Valley of California.

# **Between Crop Application**

**BAS 183 36 H** may be used as a burndown treatment to control broadleaf weeds at any time of the year during the fallow period following crop harvest and before the following crop is planted. Apply **BAS 183 36 H** as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost, or in fallow cropland or crop stubble the following spring or summer.

### **Application Rates and Timings**

Apply **BAS 183 36 H** as a broadcast or spot treatment at 3.2 to 25.6 fl ozs/A plus specified adjuvants; see **Tank Mixing Information** section for details. Refer to **Table 2** to determine use rates for specific targeted weed species. For best performance, apply **BAS 183 36 H** when annual weeds are less than 4-inches tall, when biennial weeds are in the rosette stage, and to perennial weed regrowth in late

summer or fall following a mowing or tillage treatment. For the most effective control of upright perennial broadleaf weeds for example Canada thistle and Jerusalem artichoke, apply **BAS 183 36 H herbicide** when the majority of weeds have at least 4 inches of regrowth, or for weeds for example field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts, for example rhizomes or bulblets, after the effective period for **BAS 183 36 H**. For seedling control, a follow-up program or other cultural practices should be instituted. For small grain in-crop uses of **BAS 183 36 H**, refer to **Small Grain** section for details.

Specific crop rotation intervals must be observed between an application of **BAS 183 36 H** and planting the following crop; see **Crop Rotation Restrictions** in **Use Restrictions** section.

#### **Use with Other Herbicides**

Broad-spectrum burndown control of grass weeds and/or additional broadleaf weeds requires another herbicide. **BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Distinct® herbicide
- Facet® L herbicide
- · Outlook® herbicide
- Sharpen® powered by Kixor® herbicide
- Verdict® powered by Kixor® herbicide
- 2,4-D
- glyphosate (e.g. Roundup® herbicide)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **Between Crop Application Restrictions**

- DO NOT apply more than 25.6 fl ozs/A (1.0 pound dicamba ae/A) in a single application of BAS 183 36 H as a between crop application.
- DO NOT apply more than a maximum cumulative total of 2 pounds dicamba ae/A from all product sources per year.

### Conservation Reserve Program (CRP)

**BAS 183 36 H** may be used on both newly seeded and established grasses grown in the Conservation Reserve or federal Set-Aside Programs. Treatment with **BAS 183 36 H** will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

# **Application Rates and Timings**

**BAS 183 36 H** may be applied at 3.2 to 12.8 fl ozs/A; refer to **Table 2** for rates based on target weed type and growth stage.

#### **Newly Seeded Areas**

**BAS 183 36 H** may be applied either preplant or postemergence to newly seeded grasses or small grain including barley, oats, rye, sudangrass, wheat, or other grain species grown as a cover crop. Postemergence application may be made after seedling grasses exceed the 3-leaf stage.

**Preplant Intervals.** Preplant applications at 12.8 fl ozs/A may injure new seedings if the interval between application and grass planting is less than:

- 20 days 30 inches or more annual precipitation
- 45 days less than 30-inches annual precipitation

#### **Established Grass Stands**

Established grass stands are perennial grasses planted one or more seasons before treatment. Certain species (bentgrass, buffalograss, carpetgrass, St. Augustinegrass, or smooth brome) may show a response when treated with **BAS 183 36 H** when treated with more than 12.8 fl ozs/A.

#### Use with Other Herbicides

Broad-spectrum control of broadleaf and grass weeds requires another herbicide. **BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Facet L
- atrazine
- glyphosate (e.g. Roundup)
- paraquat (e.g. Gramoxone® SL herbicide)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **CRP Restrictions**

- **DO NOT** apply more than 25.6 fl ozs/A of **BAS 183 36 H** (1.0 lb dicamba ae/A) per application.
- DO NOT apply more than a maximum cumulative total of 51.2 fl ozs/A of BAS 183 36 H (2 lbs dicamba ae/A) per year.
- BAS 183 36 H may injure newly seeded grasses and certain species, including bentgrass, buffalograss, carpetgrass, St. Augustinegrass, or smooth brome.

# Corn (field, seed, silage) and Popcorn

BAS 183 36 H herbicide may be applied preplant surface, preemergence, or postemergence to corn. Corn in this label refers to conventional field corn (grown for grain, seed, or silage) and popcorn. Before applying BAS 183 36 H to seed corn or popcorn, verify with your local seed company (supplier) the selectivity of BAS 183 36 H on your inbred line or hybrid to help avoid potential injury to sensitive inbreds or hybrids.

# BAS 183 36 H is not registered for use on sweet corn.

Direct contact of **BAS 183 36 H** with corn seed must be avoided. If corn seeds are less than 1.5 inches below the soil surface, delay application until corn has emerged.

Table 3. BAS 183 36 H Application Rates for Corn

Postemergence applications of **BAS 183 36 H** to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. To avoid breakage, delay cultivation until after corn is growing normally.

### **Application Rate**

**BAS 183 36 H** application rates vary by soil texture, organic matter, and application timing. Refer to **Table 3** for **BAS 183 36 H** application rates by application timing. Up to 2 applications of **BAS 183 36 H** may be made per year. Sequential applications must be separated by 2 weeks or more.

		Application Rate (fl ozs/A)			
Soil Texture	Organic Matter	Preplant/ Preemergence <sup>2</sup>	Preemergence	Postem	ergence
		No Tillage	Conventional/ Reduced Tillage	Early <sup>3</sup>	Late⁴
Coarse <sup>1</sup>	All	6.4	NA	6.4	6.4
Medium/Fine	2.5% or less	6.4	NA	6.4 to 12.8	6.4
Medium/Fine	more than 2.5%	12.8	12.8	6.4 to 12.8	6.4

<sup>&</sup>lt;sup>1</sup>Coarse soil types include sand, loamy sand, or sandy loam.

# Application Timing

# Preplant (up to 14 days before planting) and Preemergence Applications in No Tillage Corn

**BAS 183 36 H** can be applied to emerged weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g. alfalfa or clover), apply **BAS 183 36 H** after 4 inches of regrowth. For application rates, refer to **Table 3**.

# Preemergence Applications in Conventional or Reduced Tillage Corn

**BAS 183 36 H** may be applied after planting and before corn emergence; refer to **Table 3** for application rates. Preemergence application of **BAS 183 36 H** does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if the application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g. drags, harrows) that concentrates treated soil over seed furrow or seed damage could result.

# Postemergence Applications (all tillage systems)

Apply early postemergence treatment between corn emergence and the 5-leaf stage or 8-inches tall, whichever comes first. Apply later applications when corn is 8-inches to 36-inches tall, or up to 15 days before tassel emergence, whichever comes first. Apply as a directed spray when corn leaves prevent proper spray coverage. Application rates vary by application timing; refer to **Table 3** for specific postemergence application rates.

<sup>&</sup>lt;sup>2</sup>Use only preemergence applications in conventional and reduced tillage systems.

<sup>&</sup>lt;sup>3</sup> Apply between corn emergence and the 5-leaf stage or 8-inches tall, whichever comes first. Use crop oil concentrate only in dry conditions when corn is less than 5-inches tall and when applying **BAS 183 36 H** alone or tank mixed with atrazine.

<sup>&</sup>lt;sup>4</sup> Apply in corn that is 8-inches to 36-inches tall or up to 15 days before tassel emergence, whichever comes first.

NA - not applicable

### Use with Other Herbicides

**BAS 183 36 H herbicide** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Armezon® herbicide
- Armezon® PRO herbicide
- Outlook® herbicide
- Prowl® H2O herbicide
- Sharpen® powered by Kixor® herbicide
- Verdict® powered by Kixor® herbicide
- Zidua® herbicide
- atrazine
- glyphosate (e.g. Roundup® herbicide)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**NOTE:** Refer to tank mix product labels to confirm the respective tank mix products are registered for use on specific corn types. Not all corn products are registered on popcorn and seed corn.

### Corn and Popcorn Restrictions

- DO NOT apply more than 12.8 fl ozs/A (0.5 pound dicamba ae/A) in a single application of BAS 183 36 H.
- DO NOT apply more than a maximum cumulative total of 1.5 pounds dicamba ae/A from all product sources per year.
- Corn or popcorn forage and silage may be harvested, fed, or grazed when the crop has reached the ensilage (milk) stage or later in maturity.
- BAS 183 36 H is not registered for use on sweet corn.

#### Cotton

Before planting cotton, **BAS 183 36 H** may be used early preplant for burndown of actively growing broadleaf weeds; refer to **Table 1** for weeds controlled or suppressed.

Cotton gin byproducts may be fed to livestock.

#### Application Rates and Timings

Apply **BAS 183 36 H** as a broadcast spray up to 6.4 fl ozs/A plus specified adjuvants; refer to **Tank Mixing Information** section for details. For best performance, apply **BAS 183 36 H** when weeds are less than 4 inches in height and rosettes are less than 2-inches across.

Following application of **BAS 183 36 H**, wait until an accumulation of 1 inch of rainfall or irrigation followed by an interval of 21 days per 6.4 fl ozs/A or less before planting

cotton. This interval must be observed before planting cotton or severe crop injury may occur.

**Missouri and Tennessee Only.** Following application of **BAS 183 36 H**, wait until an accumulation of 1 inch of rainfall or irrigation followed by an interval of **14 days** per 6.4 fl ozs/A or less before planting cotton. This interval must be observed before planting cotton or severe crop injury may occur.

#### Use with Other Herbicides

Broad-spectrum postemergence control of grass weeds or additional broadleaf weeds requires another herbicide such as glyphosate. **BAS 183 36 H** may be tank mixed or applied sequentially with one or more of, but not limited to, the following herbicide products:

- Sharpen
- glyphosate (e.g. Roundup)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Cotton Restrictions**

- DO NOT apply to dicamba tolerant (DT) cotton.
- DO NOT apply more than 6.4 fl ozs/A (0.25 pound dicamba ae/A) of BAS 183 36 H per year (single growing season).
- DO NOT apply preplant to cotton west of Interstate 25.
- DO NOT make BAS 183 36 H preplant application to cotton in geographic areas with average annual rainfall less than 25 inches.
- DO NOT apply more than 2.0 pounds dicamba acid equivalent per acre for the combination of treatments if applying a spring preplant treatment following application of a fall preplant (postharvest) treatment.

#### Grass Grown for Seed

BAS 183 36 H may be used to control annual and perennial broadleaf weeds after weed emergence. For best performance, apply BAS 183 36 H when weeds are less than 4 inches in height and rosettes are less than 2-inches across. Apply BAS 183 36 H at 6.4 to 12.8 fl ozs/A plus specified adjuvants to seedling grasses after the crop reaches 3-leaf to 5-leaf stage; see Tank Mixing Information section for details. Apply up to 25.6 fl ozs/A of BAS 183 36 H on well-established perennial grasses. Use the higher rate of the listed rate range when treating more mature weeds or dense vegetative growth.

#### **Use with Other Herbicides**

**BAS 183 36 H herbicide** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Facet® L herbicide
- Prowl® H2O herbicide

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Grass Grown for Seed Restrictions**

- **DO NOT** apply **BAS 183 36 H** after grass seed crop begins to joint.
- DO NOT apply more than 25.6 fl ozs/A of BAS 183 36 H (1.0 lb dicamba ae/A) per application or a cumulative total of 51.2 fl ozs/A of BAS 183 36 H (2 lbs dicamba ae/A) per year.
- Refer to Table 4 for grazing restrictions.

# Pasture, Hay, Rangeland, and Farmstead (noncropland)

**BAS 183 36 H** may be used on pasture, hay, rangeland, and farmstead including fencerows and nonirrigation ditchbanks for control or suppression of broadleaf weed and woody brush and vine species listed in **Table 1.** 

**BAS 183 36 H** uses described in this section also refer to small grain grown for forage pasture use (rye, sorghum, sudangrass, or wheat). Grazing and harvest intervals are shown in **Table 4**.

**BAS 183 36 H** may also be applied to noncropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides, highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

#### Application Rates and Timings

Refer to **Table 2** for rate selection based on targeted weed or brush species. Some weed species will require a tank mix partner for adequate control. Retreatments may be applied as needed.

**DO NOT** apply more than 25.6 fl ozs/A of **BAS 183 36 H** per year.

**DO NOT** apply more than 12.8 fl ozs/A of **BAS 183 36 H** per year on small grain grown for pasture and newly seeded areas.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, buffalograss,

carpetgrass, and St. Augustinegrass may show a response. Usually, colonial bentgrasses are more tolerant than creeping types. Velvetgrasses are most easily injured. Treatments will injure or kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Spray volume may range from 10 to 600 gallons per acre. The volume of spray applied depends on the height, density, and type of weeds or brush being treated and on the type of equipment used. **BAS 183 36 H** may be applied as a spot treatment to individual clumps or small areas of undesirable vegetation using a handgun or similar type of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Table 4. Grazing and Haying Restrictions for Lactating Dairy Animals after BAS 183 36 H Treatment

BAS 183 36 H Rate (fl ozs/A)	Days before Grazing	Days before Hay Harvest
Up to 12.8	7	37
Up to 25.6	21	51
Up to 51.2	40	70

#### **Cut-surface Treatment**

**BAS 183 36 H** may be applied as a cut-surface treatment for control of unwanted trees and prevention of sprouts of cut trees. Mix 1 part **BAS 183 36 H** with 1 to 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- Frill or Girdle Treatment Using an axe to girdle tree trunk, make a continuous cut or a series of overlapping cuts. Spray or paint the cut surface with the solution.
- **Stump Treatment** Spray or paint freshly cut surface with the water mix. Thoroughly wet the area adjacent to the bark.

#### Dormant Multiflora Rose Applications

**BAS 183 36 H** can be applied as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-in-water emulsion solution when plants are dormant.

#### **Spot Treatment Applications**

Spot treatment application of **BAS 183 36 H** should be applied directly to the soil as close as possible to the root crown within 6 inches to 8 inches of the crown. On sloping terrain, apply **BAS 183 36 H** to the uphill side of the crown. **DO NOT** apply when snow or water prevents applying **BAS 183 36 H** directly to the soil. The use rate of **BAS 183 36 H** depends on the canopy diameter of the multiflora rose.

#### Example BAS 183 36 H use rates:

- 0.25 fl oz per 5-feet canopy diameter
- 1.0 fl oz per 10-feet canopy diameter
- 2.35 fl ozs per 15-feet canopy diameter

#### **Lo-Oil Basal Bark Treatment**

For Lo-Oil basal bark treatments, apply **BAS 183 36 H herbicide** to the basal stem region from the ground line to a height of 12 inches to 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply **BAS 183 36 H** when plants are dormant.

- DO NOT apply after bud break or when plants are showing signs of active growth.
- DO NOT apply when snow or water prevents applying BAS 183 36 H to the ground line.

#### Lo-Oil Spray Solution Preparation

- Combine 1.5 gallons of water, 1 oz of emulsifier,
   12.8 fl ozs of BAS 183 36 H, and 2.5 pints of No. 2 diesel fuel.
- 2. Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

**DO NOT** apply more than 8 gallons/A of Lo-Oil spray solution mix per year.

#### Use with Other Herbicides

Broad-spectrum control of broadleaf and grass weeds requires another herbicide. **BAS 183 36 H** may be applied sequentially with one or more herbicide products:

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# Pasture, Hay, Rangeland, and Farmstead (noncropland) Restrictions

- DO NOT apply more than a maximum cumulative total of 25.6 fl ozs/A of BAS 183 36 H (1 lb dicamba ae/A) per year.
- DO NOT apply more than a maximum cumulative total of 12.8 fl ozs/A of BAS 183 36 H (0.5 lb dicamba ae/A) to small grain grown for pasture and to newly seeded areas.

#### Proso Millet

# For use only within Colorado, Nebraska, North Dakota, South Dakota, and Wyoming

Apply **BAS 183 36 H** and 2,4-D sequentially to provide control or suppression of annual broadleaf weeds; see **Table 1**.

Apply 3.2 fl ozs/A of **BAS 183 36 H** sequentially with 0.375 lb acid equivalent of 2,4-D per acre. Apply as a broadcast or spot treatment to emerged and actively growing weeds and when proso millet is in the 2-leaf to 5-leaf stage. Use directions for 2,4-D products vary with manufacturers; refer to a 2,4-D product with labeling consistent with the crop-stage timing for **BAS 183 36 H**.

Some types of proso millet may be affected adversely by a sequential application of **BAS 183 36 H** and 2,4-D.

#### **Proso Millet Restrictions**

- **DO NOT** apply unless possible proso millet crop injury will be acceptable.
- **DO NOT** apply more than 3.2 fl ozs/A of **BAS 183 36 H** (0.125 lb dicamba ae/A) per year in proso millet.
- Refer to **Table 4** for grazing restrictions.

# Small Grain (barley, oats, triticale, and wheat)

**BAS 183 36 H** may be applied before, during, or after planting small grain (barley, oats, triticale, and wheat). Refer to **Application Rates and Timings** for specific small grain crop uses. For best performance, apply **BAS 183 36 H** when weeds are less than 4 inches in height and rosettes are less than 2-inches across. Applying **BAS 183 36 H** to small grain during periods of rapid growth may result in crop leaning; this condition is temporary and will not reduce crop yield.

Restrictions for small grain areas grazed or cut for hay are indicated in **Table 4** in **Pasture**, **Hay**, **Rangeland**, **and Farmstead** (**noncropland**) section of this label.

### **Application Rates and Timings**

### **Early Season Applications**

Table 5. Early Season Application Rate and Growth Stage in Small Grain<sup>1</sup>

Crop	Fall-seeded		Spring-seeded	
	Rate (fl ozs/A)	Growth Stage	Rate (fl ozs/A)	<b>Growth Stage</b> (up to)
Barley <sup>2, 3</sup>	1.6 to 3.2	before joint	1.6 to 2.4	4-leaf
Oats <sup>3</sup>			1.6 to 3.2	5-leaf
Triticale			1.6 to 3.2	6-leaf
Wheat <sup>4</sup>			1.6 to 3.2	6-leaf

<sup>&</sup>lt;sup>1</sup>An adjuvant system should be used with all **BAS 183 36 H** applications; refer to **Tank Mixing Information** section for details, **DO NOT** use oil concentrates for postemergence in-crop application.

#### Fall-seeded Wheat ONLY

**Western Oregon.** When applied in the spring, **BAS 183 36 H** may be used at rates up to 4.8 fl ozs/A on fall-seeded wheat. Periods of extended stress for example cold and wet weather may enhance the possibility of crop injury.

<sup>&</sup>lt;sup>2</sup> For spring barley varieties seeded during winter months or later, follow the rate and timing given for spring-seeded barley.

<sup>&</sup>lt;sup>3</sup> **DO NOT** tank mix **BAS 183 36 H** with 2,4-D in oats or early season application on spring-seeded barley.

<sup>&</sup>lt;sup>4</sup> Early developing wheat varieties must receive application between early tillering and the joint stage; ensure that the application occurs before the jointing stage.

Colorado, Kansas, New Mexico, Oklahoma, and

**Texas.** For suppression of perennial weeds (for example field bindweed), up to 6.4 fl ozs/A of **BAS 183 36 H herbicide** may be applied on fall-seeded wheat after wheat exceeds the 3-leaf stage. Application may be made in the fall following a frost but before a killing freeze.

**BAS 183 36 H** at 6.4 fl ozs/A may be sequentially applied with MCPA after wheat begins to tiller. Periods of extended stress for example cold and wet weather may enhance the possibility of crop injury. For fall applications only, **DO NOT** apply **BAS 183 36 H** if the potential for crop injury is unacceptable.

### **Preharvest Applications**

To control broadleaf weeds that interfere with harvest, **BAS 183 36 H** may be applied before harvest when barley or wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if the application can be made when weeds are actively growing but before weeds canopy.

**BAS 183 36 H** applications may be made to fall-planted and spring-planted barley and wheat at 6.4 fl ozs/A as a broadcast application or spot treatment. A preharvest interval (PHI) of 7 days is required before crop harvest.

#### **Use with Other Herbicides**

Broad-spectrum control of broadleaf and grass weeds requires another herbicide. **BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Beyond® herbicide (for Clearfield® wheat and Clearfield® Plus wheat only)
- Clearmax® herbicide (for Clearfield wheat and Clearfield Plus wheat only)
- Sharpen® powered by Kixor® herbicide
- Zidua® herbicide
- 2.4-D amine
- MCPA
- sulfonylurea-based herbicide (e.g. **Ally**® **herbicide**, **Express**® **herbicide**. **Finesse**® **herbicide**)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Small Grain Restrictions**

- Maximum use rate per application
  - 3.2 fl ozs/A (0.125 lb dicamba ae/A): Oats and triticale
- 6.4 fl ozs/A (0.25 lb dicamba ae/A): Spring-seeded barley. fall-seeded barley, wheat

#### · Maximum annual use rate

- 3.2 fl ozs/A (0.125 lb dicamba ae/A): Oats and triticale
- 8.8 fl ozs/A (0.34 lb dicamba ae/A): Spring-seeded barley
- 9.6 fl ozs/A (0.375 lb dicamba ae/A): Fall-seeded barley
- 12.8 fl ozs/A (0.5 lb dicamba ae/A): Wheat

- DO NOT apply BAS 183 36 H preharvest to oats or triticale.
- **DO NOT** use an oil concentrate adjuvant for postemergence in-crop application.
- DO NOT use preharvest-treated barley or wheat for seed unless a germination test with an acceptable result of 95% germination or more is performed on the seed.
- DO NOT graze small grain (barley, oats, triticale, wheat) within 7 days after treatment.
- DO NOT harvest for hay within 37 days after treatment.
- Barley and wheat may be harvested 7 days or more after a preharvest application.
- DO NOT make preharvest application in California.

# Sorghum

**BAS 183 36 H** may be used early preplant, postemergence, and preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds.

# **Application Rates and Timings**

# Preplant Applications (at least 14 days before planting)

A preplant application of **BAS 183 36 H** up to 6.4 fl ozs/A may be applied at least 14 days before sorghum planting.

# **Postemergence Applications**

Up to 6.4 fl ozs/A of **BAS 183 36 H** plus specified adjuvants (refer to **Tank Mixing Information** section for details) may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15-inches tall. For best performance, apply **BAS 183 36 H** when sorghum crop is in the 3-leaf to 5-leaf stage and weeds are small (less than 3-inches tall). Use drop nozzles if sorghum is taller than 8 inches. Keep spray off sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage.

Applying **BAS 183 36 H** to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 to 14 days.

# Preharvest Applications Oklahoma and Texas ONLY

Up to 6.4 fl ozs/A of **BAS 183 36 H** may be applied for weed suppression any time after sorghum has reached the soft-dough stage. An agriculturally approved surfactant may be used to improve performance; see **Tank Mixing Information** section for details. Delay harvest until 30 days after a preharvest treatment.

#### Split Applications

**BAS 183 36 H** may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. **DO NOT** apply more than 6.4 fl ozs/A of **BAS 183 36 H** (0.25 lb

dicamba ae/A) per application, or a maximum cumulative total of 12.8 fl ozs/A of **BAS 183 36 H herbicide** (0.5 lb dicamba ae/A) per year.

#### **Use with Other Herbicides**

**BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Basagran® 5L herbicide
- Facet® L herbicide
- · Outlook® herbicide (Preplant only)
- Sharpen® powered by Kixor® herbicide
- Verdict® powered by Kixor® herbicide
- atrazine
- glyphosate (e.g. Roundup® herbicide)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# Sorghum Restrictions

- DO NOT graze or feed treated sorghum forage or silage before mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and Farmstead (noncropland) section for specific grazing and feeding restrictions.
- DO NOT apply BAS 183 36 H to sorghum grown for seed production.
- **DO NOT** apply more than 6.4 fl ozs/A of **BAS 183 36 H** (0.25 lb dicamba ae/A) per application.
- DO NOT apply more than a maximum cumulative total of 12.8 fl ozs/A of BAS 183 36 H (0.5 lb dicamba ae/A) per year.
- Oklahoma and Texas only Delay harvest until 30 days after a preharvest treatment.

#### Soybean

**BAS 183 36 H** may be used preplant or preharvest in soybean to control many annual broadleaf weeds and to reduce competition from established biennial and perennial broadleaf weeds.

# **Application Rates and Timings**

# Preplant Applications (at least 14 days before planting)

Apply **BAS 183 36 H** as a broadcast spray at 3.2 to 25.6 fl ozs/A plus specified adjuvants; refer to **Tank Mixing Information** section for details.

**Preplant Intervals.** Following application of **BAS 183 36 H** and a minimum accumulation of 1 inch of rainfall or overhead irrigation, preplant waiting intervals are

required before planting soybeans or crop injury may occur:

- 14 days for 3.2 to 6.4 fl ozs/A
- 28 days for 6.5 to 12.8 fl ozs/A

#### Preharvest Applications

Apply **BAS 183 36 H** as a broadcast spray or spot spray at 6.4 to 25.6 fl ozs/A plus specified adjuvants; refer to **Tank Mixing Information** section for details. Applications should be made to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Treatments may not kill weeds that later develop from seed or underground parts, such as rhizomes or bulblets, after the effective residual period for **BAS 183 36 H**. For seedling control, a follow-up program or other cultural practices should be instituted.

#### **Use with Other Herbicides**

**BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Outlook
- Prowl® H2O herbicide
- · Pursuit® herbicide
- · Raptor® herbicide
- Sharpen
- Verdict
- Zidua® herbicide
- Zidua® PRO powered by Kixor® herbicide
- glyphosate (e.g. Roundup)

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Soybean Restrictions

- DO NOT apply to dicamba tolerant (DT) soybeans.
- DO NOT apply more than 12.8 fl ozs/A of BAS 183 36 H (0.5 lb dicamba ae/A) in a spring application before soybean planting.
- **DO NOT** make **BAS 183 36 H** preplant application to soybeans in geographic areas with average annual rainfall less than 25 inches.
- **DO NOT** apply more than 25.6 fl ozs/A of **BAS 183 36 H** (1 lb dicamba ae/A) per year (single growing season).
- DO NOT use preharvest-treated soybean for seed unless a germination test with an acceptable result of 95% germination or better is performed on the seed.
- DO NOT harvest soybeans until 7 days after a preharvest application.
- DO NOT feed soybean fodder or hay following preharvest application of BAS 183 36 H.

• DO NOT make preharvest applications in California.

# Sugarcane

**BAS 183 36 H herbicide** may be used any time after weed emergence but before the close-in stage of sugarcane to control many annual and perennial broadleaf weeds; see **Table 1** for weeds controlled or suppressed.

Apply 6.4 to 12.8 fl ozs/A of **BAS 183 36 H** for control of annual weeds and 12.8 to 25.6 fl ozs/A for control or suppression of biennial and perennial weeds. Use the higher rate of the specified rate range when treating dense vegetative growth. Repeat treatment may be made as needed; however, **DO NOT** apply more than the annual maximum cumulative total of 51.2 fl ozs/A of **BAS 183 36 H** (2 lbs dicamba ae/A).

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

#### **Use with Other Herbicides**

**BAS 183 36 H** may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Prowl® H2O herbicide
- atrazine

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Sugarcane Restrictions

- DO NOT apply more than 12.8 to 25.6 fl ozs/A of BAS 183 36 H (1.0 lb dicamba ae/A) in a single application.
- DO NOT apply more than a maximum cumulative total of 51.2 fl ozs/A of BAS 183 36 H (2 lbs dicamba ae/A) per year.
- DO NOT harvest sugarcane until 87 days after application.

# Farmstead Turf (noncropland) and Sod Farms

**BAS 183 36 H** may be used in farmstead turf (noncropland) and sod farms to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds; see **Table 1** for weeds controlled or suppressed.

**BAS 183 36 H** will also suppress woody brush and vine species; refer to **Table 2** for application rates based on targeted weed or woody brush and vine species and growth stage. Some weed species will require tank mixes for optimum control.

Repeat treatment may be made as needed; however, **DO NOT** apply more than 25.6 fl ozs/A of **BAS 183 36 H** (1 lb dicamba ae/A) per year.

Apply 30 to 200 gallons of diluted spray per acre (3 to 17 quarts of water per 1000 sq ft), depending on density or height of weeds treated and on type of equipment used.

To avoid injury to newly seeded grasses, delay application of **BAS 183 36 H** until after the second mowing. Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, buffalograss, carpetgrass, and St. Augustinegrass may show a response.

#### **Use with Other Herbicides**

**BAS 183 36 H** at 3.2 to 12.8 fl ozs/A may be applied sequentially with one or more of, but not limited to, the following herbicide products:

- Drive® XLR8 herbicide
- Pendulum® AquaCap herbicide
- Tower® herbicide
- 2.4-D
- MCPA
- MCPP

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Farmstead Turf and Sod Farm Restrictions**

- DO NOT use on residential sites.
- **DO NOT** apply more than 25.6 fl ozs/A of **BAS 183 36 H** (1 lb dicamba ae/A) per year.
- Areas where Roots of Sensitive Plants Extend
  - DO NOT apply more than 3.2 fl ozs/A of BAS 183 36 H (0.125 lb dicamba ae/A) on coarse-texture soils (sand, loamy sand, or sandy loam).
  - **DO NOT** apply more than 6.4 fl ozs/A of **BAS 183 36 H** (0.25 lb dicamba ae/A) on fine-texture soils.
  - DO NOT make repeat applications in these areas for 30 days and until previous applications of BAS 183 36 H have been activated in the soil by rainfall or irrigation.

# **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Referenced Pesticides (Name, Reg. No., Active)

**Ally® herbicide**, 279-9575, Metsulfuron Methyl **Armezon® herbicide**, 7969-262, Topramezone **Armezon® PRO herbicide**, 7969-372, Topramezone, Dimethenamid

Basagran® 5L herbicide, 7969-112, Bentazon Beyond® herbicide, 7969-441, Imazamox Clearmax® herbicide, 7969-238, Imazamox, MCPA Distinct® herbicide, 7969-150, Dicamba, Diflufenzopyr Drive® XLR8 herbicide, 7969-272, Quinclorac Express® herbicide, 279-9578, Tribenuron Methyl Facet® L herbicide, 7969-315, Quinclorac Finesse® herbicide, 279-9576, Chlorsulfuron, Metsulfuron Mehtyl

Gramoxone® SL herbicide, 100-1652, Paraquat

Lorsban® insecticide, 62719-34, Chlorpyrifos Outlook® herbicide, 7969-156, Dimethenamid Pendulum® AquaCap (add to page 23?) herbicide, 241-416, Pendimethalin

Prowl® H2O herbicide, 241-418, Pendimethalin Pursuit® herbicide, 241-310, Imazethapyr Raptor® herbicide, 241-379, Imazamox Roundup® herbicide, 524-549, Glyphosate Select Max® herbicide, 59639-132, Clethodim Sharpen® powered by Kixor® herbicide, 7969-278, Saflufenacil

Tower® herbicide, 7969-239, Dimethenamid Varisto® herbicide, 241-447, Bentazon/Imazamox Verdict® powered by Kixor® herbicide, 7969-279, Dimethenamid/Saflufenacil

**Zidua® herbicide**, 7969-338, Pyroxasulfone **Zidua® PRO powered by Kixor® herbicide**, 7969-365, Saflufenacil/Pyroxasulfone

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